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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,530	11/21/2000	Richard Odle	2224.001	2559

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EXAMINER

BROWN, VERNAL U

ART UNIT	PAPER NUMBER
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2635

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DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/718,530

Applicant(s)

ODLE ET AL.

Examiner

Vernal U Brown

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to communication filed on May 7, 2004.

Response to Amendment

The examiner has acknowledged the amendment of claim 1.

Response to Arguments

Applicant's arguments filed 5/7/2004 have been fully considered but they are not persuasive.

Regarding applicant argument regarding the method used to create the fingerprint image, The reference of Knapp is relied upon for teaching the reception of a fingerprint pattern produce by an electrical current passing through the finger in close proximity to an array of conductors (col. 5 line 36-col. 6 line 67, col. 7 lines 21-40) in order to have a more secure and reliable fingerprint sensor than the conventional optical fingerprint sensor (col. 1 lines 26-col. 2 line 20).

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the sensor means having a matrix containing an antennae array surrounded by a drive ring transmitting an electrical signal must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. U.S Patent 6100811 in view of Johnson U.S Patent 5598474 and further in view of Knapp U.S Patent 5325442.

Regarding claim 1, Hsu et al. teaches a security system for authorization to operate a vehicle (figure 5) comprising a fingerprint enrollment and verification module (the FEVM comprises fingerprint sensors 14, and 16 and the verification module 30), the FEVM is adapted for electrical connection to the electrical system of a vehicle (figure 5), a sensor means (14) mounted to capture a fingerprint image for authorization to operate the vehicle. Hsu et al. is however not explicit in teaching the fingerprint sensor mounted in the opening of the fingerprint and verification module and the fingerprint is acquired by inserting the finger in an opening and is further silent on teaching the sensor means includes a chip having an integrated circuit having a transparent coating for contacting a finger and a matrix containing an antennae array surrounded by a drive ring transmitting an electrical signal whereby placing a finger on the coating alters the electrical signal receives by the antennae array. Johnson in an art related fingerprint device teaches the acquiring of a fingerprint pattern by inserting the finger into an opening of a fingerprint enrollment and verification module (col. 8 lines 46-52). The

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acquiring of the fingerprint is considered as receiving a statistical pattern of the structure of the fingerprint because a statistical analysis is performed on the fingerprint to determine a match between the acquired and stored fingerprint (col. 10 line 66-col. 11 line 10) but is also silent on teaching the sensor means includes a chip having an integrated circuit having a transparent coating for contacting a finger and a matrix containing an antennae array surrounded by a drive ring transmitting an electrical signal whereby placing a finger on the coating alters the electrical signal receives by the antennae array. Knapp in an art related fingerprint sensing device teaches a fingerprint sensor which includes a chip having an integrated circuit having a transparent coating for contacting a finger and a matrix containing an antennae array (array formed by the electrodes 14) surrounded by a drive ring transmitting an electrical signal whereby placing a finger on the coating alters the electrical signal receives by the antennae array (col. 5 line 36-col. 6 line 67, col. 7 lines 21-40).

It would have been obvious to one of ordinary skill in the art for the fingerprint sensor to be mounted in the opening of the fingerprint and verification module and the fingerprint is acquired by inserting the finger in an opening of the verification module and the sensor means includes a chip having an integrated circuit having a transparent coating for contacting a finger and a matrix containing an antennae array surrounded by a drive ring transmitting an electrical signal whereby placing a finger on the coating alters the electrical signal receives by the antennae array in Hsu et al. as evidenced by Johnson in view of Knapp because Hsu et al. teaches a security system for authorization to operate a vehicle comprising a fingerprint enrollment and verification module and Johnson teaches acquiring of a fingerprint by inserting the finger into an opening of a fingerprint enrollment and verification module and the acquiring of the fingerprint

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is considered as receiving a statistical pattern of the structure of the fingerprint because a statistical analysis is performed on the fingerprint to determine a match between the acquired and stored fingerprint. Knapp further teaches a more fingerprint sensor which includes a chip having an integrated circuit having a transparent coating for contacting a finger and a matrix containing an array of conductors surrounded by a drive ring transmitting an electrical signal whereby placing a finger on the coating alters the electrical signal and produces a fingerprint pattern which represents a more reliable means than the conventional optical means used for producing a fingerprint.

Regarding claim 3, Hsu et al. teaches verification mode wherein the fingerprint evaluation and enrollment module apply statistical information of the archived template (the stored fingerprint) to a current to a current fingerprint pattern capture by the sensor (col. 2 lines 55-58).

Regarding claims 4-5 and 7, Hsu et al. teaches the operation of the vehicle is permitted when the current fingerprint and the archive fingerprint match and the operation of a vehicle is denied when the archived template (fingerprint) and current pattern acquired by the sensor do not match (col. 2 lines 61-col. 3 line 6). Hsu et al. further teaches electrical powered door lock (34).

Regarding claim 6, Hsu et al. teaches the vehicle has passenger doors (figure 1), and the fingerprint sensor is mounted on one of the passenger doors and is further connected to the fingerprint enrollment and verification module (30) as shown in figure 5 and wired into the vehicle's electrical system.

Regarding claim 8, Hsu et al. teaches vehicle has passenger doors (figure 1) and an electrical door lock circuit (34), the doors including electrically powered door locks connected to

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the electrical door lock circuit and the FEVM is electrically connected to the door lock circuit (figure 5), the FEVM acting as a switch activating the circuit the said template and the pattern match (col. 4 lines 30-31).

Regarding claim 9, Hsu et al. teaches the FEVM unlock the doors (col. 4 lines 38-41).

Regarding claim 10, Hsu et al. teaches the FEVM is mounted in the vehicle and is electrically wired into the electrical system of the vehicle (figure 5), the sensor of the FEVM is placed in the door handle therefore the sensor faces outwardly exposing the sensor means (col. 4 lines 43-44).

Regarding claim 11-12, Hsu et al. teaches the elements of claims 11 and 12 which is already addressed in claims 8 and 2 above.

Regarding claim 13, teaches the FEVM energizes the circuits and operates the subsidiary system (col. 4 lines 29-33).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. U.S Patent 6100811 in view of Johnson U.S Patent 5598474 in view of Knapp U.S Patent 5325442 and further in view of Gallagher U.S Patent 5253746.

Regarding claim 2, Hsu et al. in view of Johnson in view of Knapp teaches an enrollment mode in which fingerprint image is transformed to a template, the template having statistical information about the fingerprint image and is communicated to memory for archiving (col. 2 lines 35-39). Hsu et al. in view of Johnson in view of Knapp is however silent on teaching the use of flash memory. One skilled in the art recognizes that flash memory are widely

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used as storage device to prevent the loss of information in the event of a power outage as evidenced by Gallagher (col. 4 line 61).

It would have been obvious to one of ordinary skill in the art to use flash memory for storing the fingerprint template in memory in Hsu et al. in view of Johnson in view of Knapp as evidenced by Gallagher because Hsu et al. in view of Johnson in view of Knapp suggests storing the fingerprint in memory and one skilled in the art recognizes that flash memory are widely used as storage device to prevent the loss of information in the event of a power outage as evidenced by Gallagher.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vernal U Brown whose telephone number is 703-305-3864. The examiner can normally be reached on M-Th, 8:30 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vernal Brown
June 21, 2004

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
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